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Angela Suber

24024

PATENT TRADEMARK OFFICE

PATENT

Attorney Docket No. 22311/04013

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of:
U.S. Patent No. 5,856,121

Issued: January 5, 1999

Of: David GORSKI et al.

Reissue Serial No.: Unassigned

Reissue Application Filed January 05, 2001

Group Art Unit: Unassigned

Examiner: Unassigned

For: **GROWTH ARREST HOMEOBOX GENE (AS AMENDED)**

ATTN: BOX REISSUE
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

PRELIMINARY AMENDMENT

This amendment is being submitted concurrently with filing a reissue application for the above patent. Prior to examination of the reissue application on the merits, please enter the following amendment:

IN THE TITLE:

Please delete 'HOMEBOX" and replace with -- HOMEOBOX --.

IN THE CLAIMS:

Please amend the claims as follows:

7. (Amended) A vector containing the DNA [mol] molecule of claim 1.

Please add the following new claims.

28. An isolated DNA molecule, comprising a nucleotide sequence extending from about nucleotide 749 to about nucleotide 931 of SEQ ID NO:1.

29. A process for preparing a host cell for producing Gax protein comprising

(a) introducing the vector according to claim 7 into a host cell; and

(b) culturing the host cell of step (a) under conditions suitable to achieve expression of the DNA molecule contained in said vector.

30. A process for preparing a host cell for producing Gax protein comprising

(a) introducing the vector according to claim 8 into a host cell; and

(b) culturing the host cell of step (a) under conditions suitable to achieve expression of the DNA molecule contained in said vector.

31. A process for preparing a host cell for producing Gax protein comprising

(a) introducing the vector according to claim 9 into a host cell; and

(b) culturing the host cell of step (a) under conditions suitable to achieve expression of the DNA molecule contained in said vector.

REMARKS

U.S. Patent No. 5,856,121 ("the '121' patent" hereafter) issued on January 5, 1999, with claims 1-27. Because two years have not elapsed since the patent issued, a broadening reissue is available. Through error, without any deceptive intent, the patentees claimed less than they had a right to claim in the '121 patent. Accordingly, a reissue application is filed pursuant to 35 U.S.C. § 251. This preliminary amendment is being filed concurrently with the reissue application.

The correction to the title reflects the change made by the Certificate of Correction dated August 17, 1999.

Claims 1-31 are pending in this reissue application. Claims 28-31 have been added. Support for claims 28-31 can be found in the specification, as discussed below. Thus, no new matter has been added.

The claims of the '121 patent are directed to DNA encoding a Gax protein, vectors containing this DNA, host cells transformed with these vectors, and processes for preparing a Gax protein. The *Gax* gene belongs to a class of genes called the homeobox genes, which encode a class of transcription factors that influence embryogenesis, tissue specific gene expression, and cell differentiation. (Column 4, lines 28-32). The homeobox genes share a conserved nucleotide sequence referred to as the "homeobox," which encodes a 61 amino acid helix-turn-helix motif that binds to regulatory sequences with a high adenine and thymine content. (Column 4, lines 32-36). The homeobox of the rat Gax protein extends from amino acid residues 185-245 (Column 5, lines 33-36), which corresponds to nucleotides 749-931 of SEQ ID NO:1, as set forth in Figure 1.

During prosecution of the patent that gave rise to the '121 patent, applicants inadvertently omitted a claim directed to a DNA molecule comprising nucleotides 749-931 of SEQ ID NO:1. New claim 28 is directed to this embodiment of applicants' invention. In accordance with 37 C.F.R. § 1.121 (b) (2) (iii), support for claim 28 is found in the specification, for example, at column 5, lines 24-36.

Claims 7 - 9 are directed to compositions of matter that have been examined by the PTO and are fully supported by the disclosure of the specification. Claims 29-31 are directed to processes of using the compositions of claims 7-9. More specifically, claims 29, 30 and 31 are directed to processes for preparing host cells for producing Gax protein. These processes comprise providing a host cell and a vector according to claims 7, 8 and

9, and introducing said vector into said host cell under conditions suitable to achieve expression of the DNA molecule contained in the vector and encoding a Gax protein. In accordance with 37 C.F.R. § 1.121 (b) (2) (iii), support for claims 29-31 can be found in the specification, including the Example entitled "Production of Recombinant Proteins," which spans columns 12-13, and in issued claims 12-14. Therefore, the processes of claims 29-31 and the composition of matter of claims 7-9 are contained in the same application.

Claim 7 was also amended to correct a typographical error. More specifically, in line 1 of claim 7, "mol" was replaced by "molecule." This typographical error is not being relied on as a basis for seeking reissue.

CONCLUSION

In view of the foregoing amendments and remarks, the patent owner respectfully requests reconsideration and reexamination of this application and timely allowance of the pending claims.

If there are any fees due in connection with the filing of this Preliminary Amendment not already accounted for, please charge the fees to our Deposition Account No. 03-0172.

Respectfully submitted,

CALFEE, HALTER & GRISWOLD LLP

By: ______________________
Pamela A. Docherty, Reg. No. 40,591
(216) 622 - 8416

Dated: January 5, 2001